Express Mail Label No: EV 292547731 US

Date of Deposit: July 25, 2003

Attorney Docket No. C1039/7005 (HCL)

### DECLARATION FOR PATENT APPLICATION

As a below named inventor, I hereby declare that:

My residence, post office address and citizenship are as stated below next to my name.

I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled

### IMMUNOSTIMULATORY NUCLEIC ACID MOLECULES

the sp	pecification	o£	which	is	attached	hereto	unless	the	following	is	checked	:
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[x]	 was	filed	on	October	30,	1997,	as Unite	d States	Application No.08/960	,774 0	r PCT	
									(Include Series	Code)		V
	Int	ernati	ona]	l Applic	ation	n No.		*.	, bearing	attor	ney docket	No.
	 					and wa	s amende	l on		(if app	plicable).	٠.

I hereby state that I have reviewed and understand the contents of the above identified specification, including the claims, as amended by any amendment referred to above.

I acknowledge the duty to disclose information which is material to the examination of this application in accordance with Title 37, Code of Federal Regulations, \$1.56.

I hereby claim foreign priority benefits under Title 35, United States Code, \$119(a)-(d) or \$365(b) of any foreign application(s) for patent or inventor's certificate, or section 365(a) of any PCT International application designating at least one country other than the United States listed below and have also identified below any foreign application for patent or inventor's certificate or PCT International application having a filing date before that of the application on which priority is claimed:

Prior Foreign PCT International Application(s) and any priority claims under 35 U.S.C. \$\$119 and 365(a),(b):

365(a),(b):		Claimed
(Number)	(Country-if PCT, so indicate) (DD/M	//YY Filed) YES NO
		(1)
(Number)	(Country-if PCT, so indicate) (DD/M	M/YY Filed) YES NO
		(1) [1]
(Number)	(Country-if PCT, so indicate) (DD/M	M/YY Filed) YES NO

I hereby claim the benefit under Title 35, United States Code, \$119(e) of any United States provisional application(s) listed below:

(Application	Number)		(filing	date)
		:		
(Application	Number)		(filing	date)

I hereby claim the benefit under Title 35, United States Code, \$120 of any United States application(s), or \$365(c) of any PCT International application(s) designating the United States of America listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States or PCT International application in the manner provided by the first paragraph of Title 35, United States Code, \$112, I acknowledge the duty to disclose material information as defined in Title 37, Code of Federal Regulations, \$1.56

1

which became available between the filing date of the prior application and the national or PCT. International filing date of this application:

08/738,652	10/30/96	_ pending
(Application No.)	(filing date)	(status-patented, pending, abandoned)
08/386,063	02/07/95	allowed
(Application No.)	(filing date)	(status-patented, pending, abandoned)
08/276,358	07/15/94	abandoned
(Application No.)	(filing date)	(status-patented, pending, abandoned)

PCT International Applications designating the United States:

(PCT Appl. No.) (U.S. Ser. No.) (PCT filing date) (status-patented, pending, abandoned)

I hereby appoint the following attorney(s) and/or agent(s) to prosecute this application and to transact all business in the Patent and Trademark Office connected therewith:

David Wolf	17,528	Peter J. Gordon	35,164	Robert A. Skrivanek,	r.41,316
George L. Greenfield	17,756	Randy J. Pritzker	35,986	Robert M. Abrahamsen	40,886
Stanley Sacks	19,900	Richard F. Giunta	36,149	Ivan D. Zitkovsky	37,482
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Lawrence M. Green	29,384	Elizabeth R. Plumer '	36,637	Edward J. Russavage	43,069
Steven J. Henry	27,900	Timothy J. Oyer	36,628	Alan B. Sherr	42,147
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James H. Morris	34,681	Matthew B. Lowrie	38,228	Stephen R. Finch	42,534
Peter C. Lando	34,654	Michael G. Verga	39,410	Joseph Teja, Jr.	P-45, 157
Gary S. Engelson	35,128	Robert E. Rigby, Jr.	36,904	Alan W. Steele	P-45,128

Address all telephone calls to Helen C. Lockhart at telephone no. (617) 720-3500. Address all correspondence to:

Helen C. Lockhart c/o Wolf, Greenfield & Sacks, P.C., Federal Reserve Plaza 600 Atlantic Avenue Boston, MA 02210-2211

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

Inventor's signature

Full name of sole of first inventor Arthur M. Krieg

Citizenship US

Residence (City and State, or City and Country for non-U.S. residence)

890 Park Place, Iowa City, Iowa 52319

Post Office Address same as above

Inventor's signature

Full name of sole or first inventor Joel Kline
Citizenship US
Residence (City and State, or City and Country for non-U.S. residence)

552 Linder Road, N.E., Iowa City, Iowa 52242
Post Office Address same as above

Inventor's signature

Full name of sole or first inventor Dennis Klinman

Citizenship

Residence (City and State, or City and Country for non-U.S. residence)

2 Candelelight Court, Potomac, MD 20854

Post Office Address same as above

Inventor's signature

Full name of sole or first inventor Alfred Steinberg

Citizenship US

Residence (City and State, or City and Country for non-U.S. residence)

8814 Bells Mill Road, Potomac, MD 20854

Post Office Address same as above

Attorney Docket No. C1039/7005(HCL)

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the	specification	of	which	is	attached	hereto	unless	the	following	is	checked:

	Internat	tional Ap	plication No	• •	es Application (1	include Series		; et No
				was amended on _			(if applicable)	
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				information which le 37, Code of Fed				s
\$365(b any PC listed certif	) of any T Intern below a icate or	foreign a ational a nd have a	application ( pplication ( lso identificational a	nefits under Title s) for patent or designating at lea ied below any fore pplication having	inventor's cer ast one country eign application	tificate, of other that on for pate	or section 365( in the United S ent or inventor	(a) of tates 's
		PCT Inter	national Ap	oplication(s) and a	ny priority cl			l9 and
365 (a)	, (b):	,					Priority Claimed	
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(PCT Appl. No.)

(U.S. Ser. No.)

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Inventor's signature

Full name of sole or first inventor Arthur M. Krieg

Citizenship US

Residence (City and State, or City and Country for non-U.S. residence)

890 Park Place, Iowa City, Iowa 52319

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Full name of sole or first inventor

US Citizenship

Residence (City and State, or City and Country for non-U.S. residence)

552 Linder Road, N.E., Iowa City, Iowa 52242

Post Office Address same as above

Inventor's signature

Full name of sole or first inventor Dennis Klinman

Citizenship บร

Residence (City and State, or City and Country for non-U.S. residence)

2 Candelelight Court, Potomac, MD 20854

Post Office Address same as above

Date

Date

3/1/2000

Date

Inventor's signature

Full name of sole or first inventor Alfred Steinberg

Citizenship ÜS

Residence (City and State, or City and Country for non-U.S. residence) 8814 Bells Mill Road, Potomac, MD 20854

Post Office Address same as above

Attorney Docket No. C1039/7005 (HCL)

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### IMMUNOSTIMULATORY NUCLEIC ACID MOLECULES

specification					

(x)	was filed on October 30, 1997, as United States	Application No.08/960,774 or PCT
		(Include Series Code)
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			· ·	Claime	d
(Number)	(Country-if	PCT, so indicate)	(DD/MM/YY Filed)	[ ] YES	[ ] NO
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(Number)	(Country-if	PCT, so indicate)	(DD/MM/YY Filed)	YES	NO
		· .		[1]	[-]
(Number)	(Country-if	PCT, so indicate)	(DD/MM/YY Filed)	YES	ИО

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(Application	Number)	(filing	date)	_
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08/276,358	07/15/94	benobnada
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Full name of sole or first inventor Arthur M. Krieg
Citizenship US
Residence (City and State, or City and Country for non-U.S. residence)
890 Park Place, Iowa City, Iowa 52319
Post Office Address same as above

Inventor's signature Date Full name of sole or first inventor Joel Kline Citizenship US Residence (City and State, or City and Country for non-U.S. residence)
552 Linder Road, N.E., Iowa City, Iowa 52242 Post Office Address same as above

Inventor's signature

Full name of sole or first inventor Dennis Klinman

US Citizenship

Residence (City and State, or City and Country for non-U.S. residence)

Date

2-20-200 Date

2 Candelelight Court, Potomac, MD 20854 Office Address same as above

Inventor's signature

Alfred D. Steinberg Full name of sole or first inventor

US Citizenship

Residence (City and State, or City and Country for non-U.S. residence) 8814 Bells Mill Road, Potomac, MD 20854

Post Office Address same as above

Express Mail Label No: EV 292547731 US Date of Deposit: July 25, 2003



UNITED STATES DEPARTMENT OF COMMERCE Patent and Trademark Office

ASSISTANT SECRETARY AND COMMISSIONER OF PATENTS AND TRADEMARKS Washington, D.C. 20231

HR

JANUARY 24, 2001

WOLF, GREENFIELD & SACKS, P.C. HELEN C. LOCKHART FEDERAL RESERVE PLAZA 600 ATLANTIC AVENUE BOSTON, MASSACHUSETTS 02210

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initials 1/01

UNITED STATES PATENT AND TRADEMARK OFFICE NOTICE OF RECORDATION OF ASSIGNMENT DOCUMENT

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PLEASE REVIEW ALL INFORMATION CONTAINED ON THIS NOTICE. THE INFORMATION CONTAINED ON THIS RECORDATION NOTICE REFLECTS THE DATA PRESENT IN THE PATENT AND TRADEMARK ASSIGNMENT SYSTEM. IF YOU SHOULD FIND ANY ERRORS OR HAVE QUESTIONS CONCERNING THIS NOTICE, YOU MAY CONTACT THE EMPLOYEE WHOSE NAME APPEARS ON THIS NOTICE AT 703-308-9723. PLEASE SEND REQUEST FOR CORRECTION TO: U.S. PATENT AND TRADEMARK OFFICE, ASSIGNMENT DIVISION, BOX ASSIGNMENTS, CG-4, 1213 JEFFERSON DAVIS HWY, SUITE 320, WASHINGTON, D.C. 20231.

RECORDATION DATE: 10/30/2000

REEL/FRAME: 011254/0338

NUMBER OF PAGES: 2

BRIEF: ASSIGNMENT OF ASSIGNOR''S INTEREST (SEE DOCUMENT FOR DETAILS).

ASSIGNOR:

KRIEG, ARTHUR M.

DOC DATE: 10/19/2000

ASSIGNEE:

UNIVERSITY OF IOWA RESEARCH FOUNDATION 214 TECHNOLOGY INNOVATION CENTER OAKDALE RESEARCH CAMPUS IOWA CITY, IOWA 52242

SERIAL NUMBER: 09630319

PATENT NUMBER:

FILING DATE: 07/31/2000

ISSUE DATE:

CONTROL OF THE PROPERTY OF THE CONTROL OF THE PROPERTY AND AND THE

SHARON LATIMER, EXAMINER ASSIGNMENT DIVISION OFFICE OF PUBLIC RECORDS

# Attorney Dock t No. C1039/7042(HCL)

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OCT 3 0 2000 ST OCT 3 0 2000 S	U.S. DEPARTMENT OF COMMERCE Patent and Trademark Office
To the Commissioner for Patents : Please record	the attached original documents or copy thereof.
1. Name of conveying party(ies): Arthur M. Krieg  Additional name(s) of conveying party(ies) attached? [] Yes [] No  3. Nature of conveyance: [x] Assignment [] Merger [] Security Agreement [] Change of Name [] Oth r  Execution Date: October 19, 2000  4. Application number(s) or patent number(s): If this document is being filed together with a new application, A. Patent Application No.(s)  09/630,319	2. Name and address of receiving party(ies)  Name: University of lowa Research Foundation  Internal Address:  Street Address: 214 Technology Innovation Center Oakdale Research Campus  Iowa City, IA 52242  Additional name(s) & addresses(es) attached? [] Yes [] No  the execution date of the application is  B. Patent No.(s)
Name and address of party to whom correspondence     Concerning document should be mailed:	6. Total number of applications and patents involved: [1]
Name: Helen C. Lockhart Address: WOLF, GREENFIELD & SACKS, P.C. Federal Reserve Plaza 600 Atlantic Avenue Boston, MA 02210	7. Total fee (37 CFR 3.41) \$40.00  [x] Enclosed  [] Authorized to be charged to deposit account  The Commissioner is authorized to charge:  8. Deposit Account No: 23/2825
DO NOT US	SE THIS SPACE
original document.	nation is true and correct and any attached copy is a true copy of the
Helen C. Lockhart	allast October 26, 2000
Name of Person Signing Signa  Total numb r of pages including cove	ature Date or sheet, attachments, and document: [2]

## **ASSIGNMENT**

In consideration of One Dollar (\$1.00) and other good and valuable consideration, the receipt of which is hereby acknowledged, I the undersigned Arthur M. Krieg, 890 Park Place, Iowa City, IA 52246 hereby

Sell, assign and transfer to University of Iowa Research Foundation, an Iowa corporation having a place of business at 214 Technology Innovation Center, Oakdale Research Campus, Iowa City, Iowa 52242, its successors, assigns and legal representatives, all hereinafter referred to as the Assignee, the entire right, title and interest for the United States and all foreign countries, in and to any and all inventions which are disclosed in the application for United States Letters Patent filed in the United States Patent and Trademark Office on July 31, 2000 under Serial No. 09/630,319 and entitled METHODS FOR TREATING AND PREVENTING INFECTIOUS DISEASE, and in and to said application and all divisional, continuing, substitute, renewal, reissue and all other applications for Letters Patent which have been or shall be filed in the United States and all foreign countries on any of said inventions; and in and to all original and reissued patents which have been or shall be issued in the United States and all foreign countries on said inventions including the right to apply for patent rights in each foreign country and all rights to priority.

I agree that said Assignee may apply for and receive Letters Patent for said inventions in its own name; and when requested, without charge to but at the expense of said Assignee, I agree to carry out in good faith the intent and purpose of this assignment, by executing all divisional, continuing, substitute, renewal, reissue, and all other patent applications on any and all said inventions, by executing all rightful oaths, assignments, powers of attorney and other papers, by communicating to said Assignee all facts known to me relating to said inventions and the history thereof, and generally by doing everything possible which said Assignee shall consider desirable for aiding in securing and maintaining proper patent protection for said inventions and for vesting title to said inventions and all applications for patents and all patents on said inventions, in said Assignee.

I hereby request the Honorable Commissioner of Patents and Trademarks to issue said Letters Patent to said Assignee.

I covenant with said Assignee that no assignment, grant, mortgage, license or other agreement affecting the rights and property herein conveyed has been made to others by me and that full right to convey the same as herein expressed is possessed, by me.

Date Arthur M. Krieg

STATE OF Towa
COUNTY OF The same

Subscribed and sworn to before me this 19th day of Ortober 20

SEAL

My Commission Expires 6/-

Express Mail Label No. EL953478123US Date of Deposit: July 2, 2002

LAND STATES OF MARKET

UNITED STATES DEPARTMENT OF COMMERCE Patent and Trademark Office

ASSISTANT SECRETARY AND COMMISSIONER

OF PATENTS AND TRADEMARKS

Washington, D.C. 20231

SEPTEMBER 13, 2000

WOLF, GREENFIELD & SACKS, P.C HELEN C. LOCKHART FEDERAL RESERVE PLAZA 600 ATLANTIC AVENUE BOSTON, MA 02210

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RECORDATION DATE: 07/12/2000

REEL/FRAME: 010939/0417

NUMBER OF PAGES: 3

BRIEF: ASSIGNMENT OF ASSIGNOR'S INTEREST (SEE DOCUMENT FOR DETAILS).

ASSIGNOR:

KLINMAN, DENNIS

DOC DATE: 03/01/2000

ASSIGNEE:

HEALTH AND HUMAN SERVICES,
DEPARTMENT OF, UNITED STATES OF
AMERICA, AS REPRESENTED BY THE
SECRETARY, THE
BUILDING 29A, 3D10
BETHESDA, MARYLAND 20892

SERIAL NUMBER: 08960774

PATENT NUMBER:

FILING DATE: 10/30/1997

ISSUE DATE:

TONYA LEE, EXAMINER ASSIGNMENT DIVISION OFFICE OF PUBLIC RECORDS te, J-13.0

Attorney Docket No. C1039/7005 Document ID No.: 101314945

REC

Boston, MA 02210

-07-27-2000

**3HEET** 

[] Authorized to be charged to deposit account

The Commissioner is authorized to charge:

8. Deposit Account No: 23/2825

DRM PTO-1595 U.S. lev. 6-93) MB No. 0651-0011 (exp. 4/94) 101415128

DEPARTMENT OF COMMERCE
Patent and Trademark Office

To the Assistant Commissioner for Patents: Please record the attached original documents or copy thereof. 2. Name and address of receiving party(ies) Name of conveying party(ies): Dennis Klinman Name: The United States Of America, as represented additional name(s) of conveying party(ies) attached? [] Yes [X] No by the Secretary, Department of Health and **Human Services** Nature of conveyance: Internal Address: X] Assignment [] Merger Street Address: [] Change of Name 1 Security Agreement **FDA/CBER** Building 29A, 3D10 Bethesda, Maryland 20892 Execution Date: March 1, 2000 Additional name(s) & addresses(es) attached? [] Yes [X] No 4. Application number(s) or patent number(s): If this document is being filed together with a new application, the execution date of the application is A. Patent Application No.(s) B. Patent No.(s) 08/960,774 Additional numbers attached? [] Yes [X] No Name and address of party to whom correspondence 6. Total number of applications and patents involved: One Concerning document should be mailed: Helen C. Lockhart Name: 7. Total fee (37 CFR 3.41) \$ 40.00 Address: WOLF, GREENFIELD & SACKS, P.C. Federal Reserve Plaza [X] Enclosed (previously filed on 3/7/00) 600 Atlantic Avenue

DO NOT USE THIS SPACE

Statement and signature To the best of my knowledge and bel inal document.	ief, the foregoing information is true and	correct and any attached copy is a true copy o
Helen C. Lockhart (Reg. No. 39,248)	bellehochlat	- 7/12/00
Name of Person Signing	Signature	Date

### ASSIGNMENT

WHEREAS, I, Dennis Klinman, as an employee of the Department of Health and Human Services during which time co-invented "IMMUNOSTIMULATORY NUCLEIC ACID MOLECULES" for which has been made application for Letters Patent of the United States Serial No. 08/960,774 filed October 30, 1997; and

WHEREAS, I am an applicant named in the above-identified application for Letters Patent; and

WHEREAS, the conditions under which said invention was made are such as to entitle THE UNITED STATES OF AMERICA, as represented by the Secretary, Department of Health and Human Services [hereinafter THE GOVERNMENT] under Paragraph 1(a) of Executive Order 10096 to the entire right, title, and interest herein, both domestic and foreign; and

WHEREAS, THE GOVERNMENT is desirous of acquiring all domestic and foreign right, title, and interest in the above-mentioned invention described in the application for Letters Patent; and

NOW, THEREFORE, for good and valuable consideration, the receipt of which is hereby acknowledged, I hereby assign and transfer to THE GOVERNMENT, represented by the Secretary. Department of Health and Human Services, the full and exclusive rights in and to said invention in the United States and within each and every foreign country in which THE GOVERNMENT elects to file and the entire right, title, and interest in and to such applications, and any continuations, continuations-inpart, divisions, reissues or extensions thereof, and including priority rights as may be filed in the United States and foreign countries, and such Letters Patent as may be granted to be held by THE GOVERNMENT to the end of the term for which the same would have been held by the inventor had this assignment not been made.

I further agree to make, execute, and deliver to the Secretary, Department of Health and Human Services, upon request, any and all papers, documents, affidavits, or other instruments that may be necessary in the prosecution of any application or applications for improvements or reissues of Letters Patent, and to assist THE GOVERNMENT in every way as may be requested in protecting said invention, provided that any expense of extending such assistance shall be paid by THE GOVERNMENT.

IN WITNESS WHEREOF I subscribe my han	id and seal on the dates shown below:
March 1, 2000	nuklen
DateDennis Klinma	in ( )
County of Montaoneur	
State of Mary Russel	
	<b>7</b> 4
Subscribed and sworn to before me this / day of /	1/216, 49 2.000
[Seal]	usant L. Tomes al
Notar 432712 1	y Public

MY COMMISSION EXPIRES MARCH 1, 2003 MARGARET L. TOMCZAK

Express Mail Label No. EL953478123US Date of Deposit: July 2, 2002



UNITED STATES DEPARTMENT OF COMMERCE Patent and Trademark Office

ASSISTANT SECRETARY AND COMMISSIONER OF PATENTS AND TRADEMARKS Washington, D.C. 20231

FEBRUARY 26, 2001

PTAS

WOLF, GREENFIELD & SACKS, P.C. HELEN C. LOCKHART FEDERAL RESERVE PLAZA 600 ATLANTIC AVENUE BOSTON, MA 02210



\*101596365A\*

CORRECTEL NOTICE

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RECORDATION DATE: 10/30/2000

REEL/FRAME: 011254/0360

NUMBER OF PAGES: 2

BRIEF: ASSIGNMENT OF ASSIGNOR'S INTEREST (SEE DOCUMENT FOR DETAILS).

ASSIGNOR:

STEINBERG, ALFRED D.

DOC DATE: 10/30/1998

ASSIGNEE:

COLEY PHARMACEUTICAL GROUP, INC. 20 WILLIAM STREET, SUITE 115 WELLESLEY, MASSACHUSETTS 02481.

SERIAL NUMBER: 09630319

PATENT NUMBER:

FILING DATE: 07/31/2000

ISSUE DATE:

DOROTHY RILEY, PARALEGAL ASSIGNMENT DIVISION OFFICE OF PUBLIC RECORDS

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11-22-2000

# **SHEET**

U.S. DEPARTMENT OF COMMERCE Patent and Trademark Office

To the Commissioner for Patents : P	lease record the attached original documents or copy thereof.
Name of conveying party(ies): Alfred D. Steinberg	Name and address of receiving party(ies)     Name: Coley Pharmaceutical Group, Inc.
tional name(s) of conveying party(ies) attached? [] Yes [	] No Internal Address:
Nature of conveyance:	
[x] Assignment [ ] Merger	Street Address: 20 William Street, Suite 115
[] Security Agreement [] Change of Name [] Other	Wellesley, MA 02481
cution Date: October 30, 1998	Additional name(s) & addresses(es) attached? [] Yes [] No
Application number(s) or patent number(s):	
If this document is being filed together with a new	application, the execution date of the application is
A. Patent Application No.(s)	B. Patent No.(s)
09/630,319	D. Falent No.(5)
09/630,319 Addition	nal numbers attached? [] Yes [] No
Name and address of party to whom corresponde Concerning document should be mailed:  Name: Helen C. Lockhart Address: WOLF, GREENFIELD & SACKS Federal Reserve Plaza	nal numbers attached? [] Yes [] No  6. Total number of applications and patents involved: [1 ]  7. Total fee (37 CFR 3.41) \$ 40.00
Name and address of party to whom corresponde Concerning document should be mailed:  Name: Helen C. Lockhart Address: WOLF, GREENFIELD & SACKS	nal numbers attached? [] Yes [] No  ence 6. Total number of applications and patents involved: [1]  7. Total fee (37 CFR 3.41)  \$ 40.00
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Name and address of party to whom corresponder Concerning document should be mailed:  Name: Helen C. Lockhart Address: WOLF, GREENFIELD & SACKS Federal Reserve Plaza 600 Atlantic Avenue Boston, MA 02210	nal numbers attached? [] Yes [] No  6. Total number of applications and patents involved: [1]  7. Total fee (37 CFR 3.41) \$40.00  [x] Enclosed  [] Authorized to be charged to deposit account  The Commissioner is authorized to charge:
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Name and address of party to whom corresponder Concerning document should be mailed:  Name: Helen C. Lockhart Address: WOLF, GREENFIELD & SACKS Federal Reserve Plaza 600 Atlantic Avenue Boston, MA 02210  Statement and signature To the best of my knowledge and belief, the fore	nal numbers attached? [] Yes [] No  6. Total number of applications and patents involved: [1 ]  7. Total fee (37 CFR 3.41) \$40.00  [x] Enclosed  [] Authorized to be charged to deposit account  The Commissioner is authorized to charge:  8. Deposit Account No: 23/2825  DO NOT USE THIS SPACE

CpG ImmunoPharmaceuticals, Inc. 55 William Street, Suite 120 Wellesley, Massachusetts 02481 Phone 781-431-6400 Fax 781-431-6403



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October 30, 1998

Alfred D. Steinberg, M.D. 8814 Bells Mill Rd Potomac, MD 20854

VIA OVERNIGHT COURIER

PERSONAL AND CONFIDENTIAL

Dear Dr. Steinberg

This is to confirm in writing the understanding reached by the Company and you under which you will serve as a consultant to the Company.

The Company hereby retains you to render such consulting, advisory and related services to the Company in the field of vaccine adjuvants, cancer vaccines and immunomodulation as the Company may reasonably request from time to time. You hereby accept such engagement subject to the terms and conditions set forth herein.

You hereby agree that if you are determined to be an inventor of U.S. patent application Serial No. 05/276,358, entitled "Immunomodulatory Oligonucleotides," you do hereby assign all right, title and interest you may have in such patent application and all related patent applications and patents (including any continuations, continuations-in-part, divisions, extensions, renewals, reissues, revivals, re-examinations and foreign counterparts) to CpG ImmunoPharmaceuticals, Inc. To the best of your knowledge and belief, you are free to assign such ownership interest to CpG without the consent of any third party.

In consideration for the above assignment and your consulting services, you shall receive the option to purchase 50 shares of the Company's Common Stock at a purchase price of \$205.70 per share, with such option to purchase all 50 shares vesting immediately upon execution of this Letter Agreement, and pursuant to the terms of a Non-Qualified Stock Option Agreement to be entered into between the parties hereto. In addition, you shall be paid \$34,335.00 upon the Company's receipt of an executed copy of this Agreement.

This Agreement may be terminated by you for any reason by giving the Company 30 days written notice. In the event that you so terminate this Agreement, you shall be entitled to all valid, non-reimbursed personal expenses incurred by you in connection with performance of your consulting services. The Company may terminate this Agreement only with your written, mutual consent. Regardless of which party terminates this Agreement, the assignment mentioned above shall remain in force, and you shall have 3 months in which to exercise your right to purchase the balance, if any, of the 50 shares of stock not previously purchased.

Please acknowledge your agreement with the foregoing by signing below, keeping one original copy, and returning the other original in the enclosed overnight courier envelope to me for our files. Thanks.

Verwiruly yours

Robert L. Bratzler, Ph.D.

President and Chief Executive Officer

Agreed to and Acknowledged by: 2

Aifred D. Steinberg, M.D.